City of Sunnyvale

Ten Year Project Costs

by Project Category and Type

Project Number	Project Name	Prior Years Actual	Revised Budget 2002-03	Plan 2003-04	Plan 2004-05	Plan 2005-06	Plan 2006-07	Plan 2007-08	Plan 2008-09	Plan 2009-10	Plan 2010-11	Plan 2011-12	Plan 2012-13	Ten Year Plan Total	**Project Grand Total**
Category:	**Infrastructure**														
Type:	**Street & Traffic Signals**														
820160	Mathilda Avenue Traffic Signal Controller Replacement														
		377,286	322,546	0	0	0	0	0	0	0	0	0	409,663	409,663	1,109,495
820180	Traffic Signal Controller Replacement														
		468,978	43,759	118,095	83,967	18,610	135,637	59,292	177,738	82,250	62,922	128,361	109,106	975,978	1,488,715
820190	Traffic Signal Underground Replacement														
		531,338	755,790	50,000	51,000	827,090	0	573,670	146,285	149,211	152,195	465,718	316,689	2,731,858	4,018,986
820200	Traffic Signal Light Emitting Diode Array Replacements														
		15	0	0	55,636	56,749	57,884	59,041	60,222	61,427	62,655	63,908	65,186	542,708	542,723
822710	Mathilda Avenue Railroad Overpass Improvements														
		6,000,000	8,432,319	1,000,000	8,000,000	0	0	0	0	0	0	0	0	9,000,000	23,432,319
Total		7,377,617	9,554,414	1,168,095	8,190,603	902,449	193,521	692,003	384,245	292,888	277,772	657,987	900,644	13,660,207	30,592,238

Project Information Sheet

Project: 820160 Mathilda Avenue Traffic Signal Controller Replacement

Category:	Infrastructure	Type:	Street & Traffic Signals	Department:	Public Works
Origination Year:	1998-99	Phase:	Ongoing	Project Manager:	Hira Raina
Planned Completion Year:	Ongoing	% Complete:	n/a	Project Coordinator:	Jack Witthaus
Origin:	Staff			Interdependencies:	none
Element:	1 Land Use and Transportation			Goal:	1.C3.1, 1.C3.3, 1.C3.4
Sub-Element:	none			Neighborhood:	City Wide
Fund:	610 Infrastructure Renov & Replace			Sub-Fund:	100 General Fund Assets

Statement of Need

This project provides for the replacement of aging traffic signal controllers/coordination equipment on Mathilda Avenue from El Camino Real to Ahwanee/Almanor Avenues. The new coordination equipment is compatible with other arterial systems for Sunnyvale Saratoga Road and Fair Oaks Avenue. The estimated life of the new controllers is 10 years.

Service Level

This project will replace the traffic signal controllers/interconnect system on Mathilda Avenue from El Camino Real to Ahwanee/Almanor Avenues. The existing equipment has reached the end of its useful life and is in need of replacement.

Issues

This is the City match for the TFCA grant 820161 Central Sunnyvale Arterial Management project. This project is currently under construction and should be completed within the next few months.

Project Financial Summary

Financial Data	Prior Years Actual	Revised Budget 2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	10 Year Budget	Grand Total
Project Costs	54,740	322,546	0	0	0	0	0	0	0	0	0	409,663	409,663	786,949
Revenues														
Total	0	0											0	0
Transfers-In														
Infra Fund - General Assets			0	0	0	0	0	0	0	0	0	409,663		
Total	0	0											409,663	409,663
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 820180 Traffic Signal Controller Replacement

Category:	Infrastructure	Type:	Street & Traffic Signals	Department:	Public Works
Origination Year:	1998-99	Phase:	Ongoing	Project Manager:	Hira Raina
Planned Completion Year:	Ongoing	% Complete:	n/a	Project Coordinator:	Dennis Ng
Origin:	Staff			Interdependencies:	none
Element:	1 Land Use and Transportation			Goal:	1.C3.1, 1.C3.3, 1.C3.4
Sub-Element:	none			Neighborhood:	City Wide
Fund:	610 Infrastructure Renov & Replace			Sub-Fund:	100 General Fund Assets

Statement of Need

This project provides for the replacement of traffic signal controllers at the end of their estimated useful life. Traffic signal controllers are all solid state. Controllers will require replacement at approximately 15-20 year intervals due to obsolescence or changes in functionality. Pending upgrades include Evelyn/Frances, Pastoria/Washington, Bernardo/Heatherstone, Bernardo/Washington.

Service Level

This project will improve traffic flow at intersections by allowing the newer and more advanced features of traffic signal controllers to be put into place throughout the city as they become available. In addition, it will increase the reliability of the City's signal control equipment, thereby reducing its liability exposure.

Issues

This project provides for the replacement of traffic signal controllers throughout the City as they reach the end of their useful lives. These computer-based controllers deteriorate with time and replacement parts become difficult to find as the equipment is phased out of manufacture.

Project Financial Summary

Financial Data	Prior Years Actual	Revised Budget 2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	10 Year Budget	Grand Total
Project Costs	443,106	43,759	118,095	83,967	18,610	135,637	59,292	177,738	82,250	62,922	128,361	109,106	975,978	1,462,843
Revenues														
Total	0	0											0	0
Transfers-In														
Infra Fund - General Assets			118,095	83,967	18,610	135,637	59,292	177,738	82,250	62,922	128,361	109,106		
Total	0	0											975,978	975,978
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 820190 Traffic Signal Underground Replacement

Category:	Infrastructure	Type:	Street & Traffic Signals	Department:	Public Works
Origination Year:	1998-99	Phase:	Ongoing	Project Manager:	Hira Raina
Planned Completion Year:	Ongoing	% Complete:	n/a	Project Coordinator:	Dennis Ng
Origin:	Staff			Interdependencies:	none
Element:	1 Land Use and Transportation			Goal:	1.C3.1, 1.C3.3, 1.C3.4
Sub-Element:	none			Neighborhood:	City Wide
Fund:	610 Infrastructure Renov & Replace			Sub-Fund:	100 General Fund Assets

Statement of Need

This project provides for the replacement of traffic signal underground conduits and structures at the end of their estimated life span. Underground cables and conduits have a life expectancy of 20 - 40 years with an average of 35 years. Pending installations include Washington/Pastoria, Evelyn/Frances, Fair Oaks/Kifer, Fair Oaks/Wolfe, Wolfe/Arques, and Sunnyvale-Saratoga/Fremont. In FY 2002/2003, Mathilda/Ahwanee, Mathilda, Maude, and Wolfe/Old S.F.installations were completed.

Service Level

This project will help to minimize the inconvenience to the travelling public when underground signal facilities begin to fail, by having the means to deal with them already in place.

Issues

This project provides for the replacement of underground traffic signal conduit and conductors as they reach the end of their useful life. If not replaced, the repairs and downtime of traffic signals could be significantly affected. Life cycles vary from 20 – 40 years depending on the type of materials used. Many of our signals have now reached the end of the the life cycle.

Project Financial Summary

Financial Data	Prior Years Actual	Revised Budget 2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	10 Year Budget	Grand Total
Project Costs	173,034	755,790	50,000	51,000	827,090	0	573,670	146,285	149,211	152,195	465,718	316,689	2,731,858	3,660,682
Revenues														
Total	0	0											0	0
Transfers-In														
Infra Fund - General Assets			50,000	51,000	827,090	0	573,670	146,285	149,211	152,195	465,718	316,689		
Total	0	0											2,731,858	2,731,858
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 820200 Traffic Signal Light Emitting Diode Array Replacements

Category:	Infrastructure	Type:	Street & Traffic Signals	Department:	Public Works
Origination Year:	1997-98	Phase:	Ongoing	Project Manager:	Hira Raina
Planned Completion Year:	Ongoing	% Complete:	n/a	Project Coordinator:	Dennis Ng
Origin:	Staff			Interdependencies:	none
Element:	1 Land Use and Transportation			Goal:	1.C3.3, 1.C3.4
Sub-Element:	none			Neighborhood:	City Wide
Fund:	610 Infrastructure Renov & Replace			Sub-Fund:	100 General Fund Assets

Statement of Need

This project funds replacement of the red traffic signal light emitting diode arrays (LED) as they approach the end of their useful life. The LEDs are warranted for seven years. It is expected that 15% of the installed LED arrays will need to be replaced annually. The LED arrays result in a significant savings to the City in power consumption and annual replacement costs. This project will be increased when the green signal LED arrays and pedestrian crossing indicators are added to the system.

Service Level

This project will replace the Light Emitting Diode lights used for traffic signals. The expected lifetime of these lights is 7-10 years and it is anticipated that 15% of these lights will need to be replaced per year beginning in FY 2004/05 fiscal year. The previous incandescent lights that were used were replaced every 1-2 years.

Issues

None.

Project Financial Summary

Financial Data	Prior Years Actual	Revised Budget 2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	10 Year Budget	Grand Total
Project Costs	15	0	0	55,636	56,749	57,884	59,041	60,222	61,427	62,655	63,908	65,186	542,708	542,723
Revenues														
Total	0	0											0	0
Transfers-In														
Infra Fund - General Assets			0	55,636	56,749	57,884	59,041	60,222	61,427	62,655	63,908	65,186		
Total	0	0											542,708	542,708
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 822710 Mathilda Avenue Railroad Overpass Improvements

Category:	Infrastructure	Type:	Street & Traffic Signals	Department:	Public Works
Origination Year:	2001-02	Phase:	Design	Project Manager:	Hira Raina
Planned Completion Year:	2004-05	% Complete:	5	Project Coordinator:	Jack Witthaus
Origin:	Staff			Interdependencies:	none
Element:	1 Land Use and Transportation			Goal:	1.C3.1
Sub-Element:	none			Neighborhood:	City Wide
Fund:	385 Capital Projects			Sub-Fund:	600 Gas Tax Funded

Statement of Need

The existing bridge has been rated below standard by CalTrans. The project will provide widening and possible reconstruction of a portion of the bridge to improve traffic for Mathilda Avenue and Evelyn Avenue. This project is subject to 80% reimbursement from State/Federal funds. Funding has been granted for preliminary engineering, and is anticipated for construction.

Service Level

This project will upgrade/replace the Mathilda Avenue Bridge over the CALTRAIN line. This structure has been rated by CALTRANS as obsolete due to existing conditions that do not meet current design standards. The project will correct these deficiencies and add a southbound to eastbound connection to Evelyn Avenue and the Downtown area. The project is funded by a Federal grant to pay for 80% of the total project costs.

Issues

Staff anticipates the actual project costs to be incurred at a delayed pace of approximately $1M in FY 2002/2003, $8M in FY 03/04, and $8M in FY 2004/2005. Actual receipt of project revenues will also be delayed because they are reimbursed based on 80% of costs incurred.

Project Financial Summary

Financial Data	Prior Years Actual	Revised Budget 2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	10 Year Budget	Grand Total
Project Costs	67,681	8,432,319	1,000,000	8,000,000	0	0	0	0	0	0	0	0	9,000,000	17,500,000
Revenues														
Seismic Retrofit of Bridges			800,000	6,400,000	0	0	0	0	0	0	0	0		
Total	0	6,800,000											7,200,000	14,000,000
Transfers-In														
Gas Tax Fund			200,000	1,600,000	0	0	0	0	0	0	0	0		
Total	0	0											1,800,000	1,800,000
Operating Costs	0	0	0	0	5,971	6,150	6,334	6,524	6,720	6,922	7,129	7,343	53,093	53,093